

Appl. No. 10/050,476  
Amdt.AP. dated August 25, 2005  
Reply to Final Office Action of June 30, 2005

### REMARKS

Applicants have carefully reviewed the Final Office Action mailed June 30, 2005 in which claims 1-8, 10-12, 16-17, and 20-23 were rejected and claims 18-19 were withdrawn from consideration. Favorable reconsideration is respectfully requested in light of the following comments and in light of the above amendments in which claim 16 has been amended to include elements of claim 20, which has been canceled, and claims 21-23 have been amended to update dependencies rendered incorrect by canceling claim 20. No new matter has been added as a result of these amendments.

#### *Rejections under 35 U.S.C. § 102*

Claims 1-8, 11-12, 16-17 and 20-23 were rejected under 35 U.S.C. 102(e) as being anticipated by Ajioka, U.S. Pub. No. 2003/0133247 A1. Applicants respectfully traverse the rejection. In order to anticipate, the cited reference must disclose each and every claimed element. Ajioka fails to disclose any of the elements.

Claim 1 recites "a metallic tubular member" and "a polymeric tubular member." The only member that could be a tubular member, even for the sake of argument, is axis of rotation 32, shown in Figure 14 of Ajioka. As it is termed an "axis of rotation," it is unclear whether it is a physical element at all. Nevertheless, as no further detail is provided, we cannot reasonably infer its material. And, as there is only one axis of rotation 32, there cannot be both a metallic tubular member and a polymeric tubular member, as required to anticipate the claim.

Claim 1 also recites "a polymeric tubular member disposed over at least a portion of the metallic tubular member forming a lap joint." Applicants were unable to find any lap joints between a polymeric tubular member and a metallic tubular member in the disclosure of Ajioka.

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Further, claim 1 recites "a coupling agent comprising a functionalized titanate," which Ajioka does not disclose. The only titanate that Ajioka discloses is lead zirconate titanate (PZT), which may be used as a piezoelectric element 1. Use of PZT as a coupling agent is not disclosed. Further, lines such as "When the piezoelectric element 1 is a piezoelectric ceramic like PZT...metal can be stuck by adhesives 5" in paragraph 87 suggest that PZT is unsuitable for use as a coupling agent. And, as noted above, with no lap joints between a polymeric tubular member and a metallic tubular member, the coupling agent is unable to be disposed within the lap joint, as required to anticipate the claim.

For the foregoing reasons, Applicants respectfully submit that claim 1 is in condition for allowance. As claims 2-8 and 10-12 depend from claim 1 and contain additional elements, Applicants submit that these claims are in condition for allowance as well.

With respect to claim 16, Applicants note that claim 16 requires the presence of a coupling agent that is disposed within a lap joint formed between a metallic tubular member and a polymeric tubular member. As noted above with respect to claim 1, neither a metallic tubular member, a polymeric tubular member, nor a lap joint is disclosed. For at least these reasons, Applicants submit that claim 16 is allowable over Ajioka. Claim 20 was cancelled, and Applicants submit that because claims 17 and 21-23 depend from claim 16 and contain additional elements, they are also allowable over this reference.

Claims 16-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Peters et al. (U.S. Patent No. 5,549,552). Amended claim 16 recites "wherein the coupling agent is a functionalized titanate," which Peters et al. do not disclose. As a reference needs to disclose each and every element to anticipate a claimed invention, Applicants submit that claim 16 is in

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condition for allowance. As claim 17 depends from claim 16 and contains additional elements, Applicants submit that this claim is in condition for allowance as well.

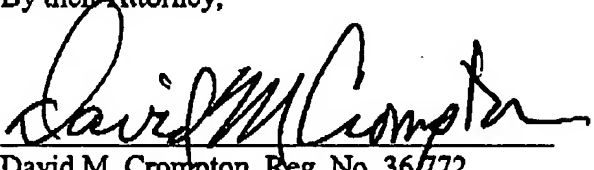
Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Lixiao Wang et al.

By their Attorney,

Date: 8/25/05



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